

IN THE CLAIMS

Please add a page break, after the paragraph on page 13, lines 14-21.

Please change the heading on page 13 before the claims as follows:

CLAIMS~~Patent claims:~~

What is claimed is:

1. (Currently amended) A pProcess for the packet-oriented transmission of security-relevant data ~~(11, 11b, 12, 12b)~~, ~~in particular~~ under application of at least one transmission system with ~~comprising~~ a parallel and/or serial network and/or bus system with at least one user connected to it, the process, comprising:

transmitting the security-relevant data and redundant information based on the security-relevant data, ~~where in addition to the security-relevant data (11, 11b, 12, 12b) a redundant information based on the data (21, 21b) is transmitted,~~

wherein ~~characterized in that~~ the security-relevant data ~~(11, 11b, 12, 12b)~~ and the redundant information ~~based on this data (21, 21b)~~ are ~~is~~ transmitted in different packets ~~(1, 1b, 2, 2b)~~.

2. (Currently amended) The pProcess according to cClaim 1, ~~wherein~~ ~~characterized in that~~ the redundant information ~~(21, 21b)~~ is encoded.

3. (Currently amended) The pProcess according to cClaim 1, ~~wherein~~ ~~2~~ ~~characterized in that~~ the redundant

information ~~(21, 21b)~~ is a check sum (CRC) calculated over the security-relevant data.

4. (Currently amended) The pProcess according to cClaim 1, wherein, 2 or 3 ~~characterized in that the security-relevant data is selected from the group consisting of~~ comprise user data ~~(11, 11b)~~, check data, ~~(12, 12b)~~ and ~~or~~ control data.

5. (Currently amended) The pProcess according to claim 1, further comprising transmitting one of the Claims 1 through 4 ~~characterized in that several packets (1, 1b, 2, 2b) are transmitted within a predefined (superset) frame structure.~~

6. (Currently amended) The pProcess according to claim 5, wherein one of the Claims 1 through 5 ~~characterized in that the packets within a predefined (superset) frame structure) include~~ comprise the security-relevant data (11, 11b, 12, 12b) and the ~~redundant information (21, 21b) that are allocated to each other.~~

7. (Currently amended) The pProcess according to claim 6, wherein one of the Claims 1 through 6 ~~characterized in that the packets (1, 1b, 2, 2b) with the security-relevant data (11, 11b, 12, 12b) and the~~ redundant information (21, 21b) that are allocated to each other are transmitted in a parallel or serial way.

8. (Currently amended) The pProcess according to claim 6, wherein one of the Claims 1 through 7 ~~characterized in that the packets (1, 1b, 2, 2b) with the security-relevant data and the~~ redundant information that are allocated to each other are transmitted in strings or

separately.

9. (Currently amended) The pProcess according to claim 1, ~~wherein one of the Claims 1 through 8 characterized in that the packets include (1, 1b, 2, 2b) comprise~~ an addressing block and/or an identification code for their logical allocation.

10. (Currently amended) A dDevice, ~~in particular~~ for a transmission system with at least one parallel and/or serial network and/or bus system, for the packet-oriented transmission of security-relevant data ~~(11, 11b, 12, 12b)~~, comprising:

means, ~~—~~ arranged on the side of the sender, ~~—~~ for the packet-oriented embedding of the security-relevant data ~~(11, 11b, 12, 12b)~~ and the allocated redundant information ~~(21, 21b)~~ into different packets ~~(1, 1b, 2, 2b)~~.

11. (Currently amended) The dDevice according to cClaim 10, further comprising ~~characterized by~~ an encoding device for the encoding of the redundant information ~~(21, 21b)~~.

12. (Currently amended) The dDevice according to cClaim 10 ~~wherein 11 characterized in that~~ the means for embedding are allocated means for the generation of the redundant information ~~(21, 21b)~~ with the same number of bits (n) as the security-relevant data ~~(11, 11b, 12, 12b)~~ to be transmitted.

13. (Currently amended) The dDevice according to cClaim 10 ~~wherein 11 or 12 characterized in that~~ the means for the generation and/or embedding are designed such that any possible combination of the security-oriented data

~~{11, 11b, 12, 12b}~~ of a packet ~~{1, 1b}~~ unambiguously results in exactly one of the possible combinations with the allocated redundant information ~~{21, 21b}~~ within the packet ~~{2, 2b}~~.

14. (Currently amended) The dDevice, ~~in particular for a transmission system with at least one parallel and/or serial network and/or bus system, for the packet-oriented transmission of security-relevant data {11, 11b, 12, 12b}, in particular according to claim 10, further comprising one of the Claims 10 through 13 characterized by means arranged on the side of the receiver for the verification of an error-free data transmission based on the security-relevant data {11, 11b, 12, 12b} and the allocated redundant information {21, 21b} embedded in different packets {1, 1b, 2, 2b}.~~

15. (Currently amended) The dDevice according to cClaim 14 ~~wherein characterized in that~~ the means for the verification are allocated means for reading out and allocating security-relevant data ~~{11, 11b, 12, 12b}~~ and allocated redundant information ~~{21, 21b}~~ received in different packets.

16. (Currently amended) The dDevice according to claim 10, ~~wherein one of the Claims 10 through 15 characterized in that~~ several packets ~~{1, 1b, 2, 2b}~~ with the security-relevant data ~~{11, 11b, 12, 12b}~~ and/or the allocated redundant information are capable of being ~~{21, 21b} can be~~ transmitted within a predefined (superset) frame structure.

17. (Currently amended) The dDevice according to claim 10, further comprising one of the Claims 10 through 16

~~characterized by~~ means for the packet-oriented embedding and readout of addressing blocks and/or identification codes for the logical allocation of individual packets ~~(1, 1b, 2, 2b)~~ and/or their contents ~~(11, 11b, 12, 12b, 21, 21b)~~ to each other.

18. (Currently amended) The dDevice according to claim 10, ~~wherein one of the Claims 10 through 17 characterized in that~~ the means are allocated to slave devices and/or a master device.

19. (Currently amended) A tTransmission system comprising:~~with~~

at least one parallel and/or serial ~~network~~ and/or bus system; ~~and with~~

at least one device according to claim 10~~one of the Claims 10 through 18.~~

20. (Currently amended) The tTransmission system according to cClaim 19, wherein the network and/or bus system ~~there is~~ at least one ring-, line-, star- and/or tree-shaped network and/or bus structure.

21. (Currently amended) The tTransmission system according to cClaim 19, wherein the network and/or bus system ~~is or 20 comprising~~ at least one selected from the group consisting of Interbus, one Ethernet, one Profibus, ~~and/or~~ one CAN.

22. (Currently amended) Use of a transmission system according to claim 19~~Claim 19, 20 or 21~~ in the fields selected from the group consisting of building control technology, process industry, manufacturing industry,

passenger transportation, and~~/or for the~~ operation of an
automation plant.